UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/082,960	05/22/1998	ANN M. WOLLRATH	06502.0111-0	3411

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FINNEGAN, HENDERSON, FARABOW, GARRETT &
DUNNER LLP
1300 I STREET, NW
WASHINGTON, DC 20006

EXAMINER
LAO, SUE X

ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 01/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary	Application No. **09/082,960**	Applicant(s) **Wollrath, et al**
	Examiner **S. Lao**	Art Unit **2126**

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____3____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Nov 5, 2002* .

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *34-41, 43-61, and 63-105* is/are pending in the application.

    4a) Of the above, claim(s) *44-52* is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *34-41, 43, 53-61, and 63-105* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some* c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    *See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

4) ☐ Interview Summary (PTO-413) Paper No(s). _____

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other:

U. S. Patent and Trademark Office

PTO-326 (Rev. 04-01)　　　　　　　　Office Action Summary　　　　　　　　Part of Paper No. 19

DETAILED ACTION

1.   Claims 34-41, 43-61, 63-105 are pending. This action is in response to the amendment filed 11/5/2002. Applicant has amended claims 39 and 59, canceled claims 42 and 62, and added claims 64-105.

2.   In the Response filed 3/1/2002, applicant has elected Group I, consisting of claims 34-43 and 53-63. Applicant is required to cancel the non-elected claims (claims 44-52).

3.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.   Claims 72-77, 104 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 72-77 respectively recite "The method of claim 70" in line 1, which is an inappropriate dependent. For the purpose of art rejection, it is interpreted as "The method of claim 71", as best understood and as it appears to be.

Claim 104 recites "the second computing environment" in line 2. There is insufficient antecedent basis for this limitation in the claim. For the purpose of art rejection, it is interpreted as "a second computing environment", as best understood and as it appears to be.

6.   Claims 34, 39-41, 43, 53, 54, 59-61, 63 are rejected under 35 U.S.C. 102(a) as being anticipated by Gaines (U S Pat. 5,961,582).

As to claims 34 and 54, Gaines teaches a method in a data processing system (distributed execution environment 301, fig. 3A and fig. 1) having a first program (virtual application on each server host computer 101 such as first server host) containing code (transferable program 302 including elements of user interface 203) and having a second program (virtual application on each server host computer 101 such as second server host), the method comprising the steps of: providing a first abstract computing machine (virtual operating system 141 executing on each/first server host 101) to the data processing system; providing a second abstract computing machine (virtual operating system 141 executing on each/second server host 101, another/separate instance of virtual operating system 141) to the data processing system; running the first program on the first abstract computing machine (execute virtual application / execute transferable program 302 on first server host); running the second program on the second abstract computing machine (execute virtual application / execute transferable program 302 on second server host); sending (transfer) a portion of the code (transferable program 302 including elements of user interface 203) from the first program to the second program (from first to second server hosts); and running the portion of the code by the second program on the second abstract computing machine (execute program 302 at second server host). See col. 6, lines 22-46; col. 12, line 50 - col. 14, line 65; in particular, col. 14, lines 15-27.

As to claims 39 and 59, Gaines teaches first/second computer system with a first/second processor (multiple host machines 101 in fig. 3A, each executing the virtual OS 141 on a processor, fig. 1), the second program has second code (transferable program 302 including user interface 203 transferred to and executing on each server host), receiving the first/second code by the first/second abstract computing machine (process control filter 151 for interprocess communication between first and second hosts); converting (translate) the first/second code into a format suitable to the first/second processor by the first/second abstract computing machine (translate virtual request to request for actual resources); executing the first/second code in the format suitable to (use actual resource such as file system 105). See col. 6, lines 29-36, 42-46; col. 7, lines 15-30; fig. 1.

As to claims 40 and 60, Gaines teaches providing the first/second abstract computing machine to the first/second computer system (multiple host machines 101 in fig. 3A, each executing the virtual OS 141). See col. 12, line 50 - col. 14, line 65.

As to claims 41 and 61, Gaines teaches in a same manner (run programs in a host independent manner, relatively uniform environment in which program executes). See col. 4, lines 14-19; col. 5, lines 14-18.

As to claims 43 and 63, note discussions of claims 34 and the portion of code (program 302) in Gaines is received before executed at the second host.

As to claim 53, note the discussions of claims 34 and 41.

7.   Claims 35-38, 55-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaines as applied to claims 34 and 54 and further in view of Priven et al (U S Pat. 5, 327,559).

As to claims 35 and 55, Priven teaches sending an object (CIP object 702) containing a portion of code (action 706) of one program to another program for remote execution in a distributed execution environment. See fig. 7A and denoting text. Given the teaching of Priven, it would have been obvious to send an object containing the portion of the code to the second program. In so doing, the platform-independence of messaging in Gaines would have been enhanced by the self-describing nature of the message format of Priven (col.12, lines 34-47).

As to claims 36 and 56, Gaines as modified teaches (Priven) sending data (parameters 708) for remote execution. See fig. 7A and denoting text. Note discussion of claim 35 for a motivation to combine.

As to claims 37, 38, 57 and 58, Gaines teaches the second/first program has a function (program 302 in each server host computer 101), invoking the function by the first/second program (for execution on a server host computer 101). See col. 14, lines 15-27; fig. 3A, 3B. Priven teaches that, between two distributed programs, code (action 114) is part of an object (CIP object 702), passing the object as a parameter to a function (remote processing by application 1116) and returning the object as a result of (send

response to sending system). See fig. 7A; col. 8, lines 12-24; col. 10, lines 6-25. Note discussion of claim 35 for a motivation to combine.

8.   Claims 64, 66, 68-71, 73, 75-78, 80, 82-85, 87, 89-92, 94, 96-99, 101, 103-105 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaines as applied to claims 34 and 54 in view of Hill et al (U S Pat. 5,511,197).

As to claims 64, 78, 92, it is covered by claim 34 except for based on second code obtained from. Note discussion of claim 34 and the equivalence of executing/running. Gaines further teaches first/second computing environments (host machines 101, fig. 3A, or virtual OSes thereon), returning results (output, col. 10, lines 55-62). Regarding based on a second code for a sending step, it is taught by Hill (identifier of stub) (abstract, col. 5, line 39 - col. 6, line 9). Given the teaching of Hill, it would have been obvious to send based on a second code. The motivations to combine the teachings of Gaines and Hill include providing automatically customized communication interfaces (Hill, col. 5, lines 39-54) which is desirable in Gaines (user familiarity).

As to claims 66, 73, 80, 87, 94, 101, Gaines teaches function (service), parameter (permission 147).

As to claims 68, 75, 82, 89, 96, 103, the system of Gaines is a runtime system.

As to claim 69, 76, 83, 90, 97, 104, Gaines as modified teaches (Hill) instance of a stub class (discussion of claim 64 with respect to Hill).

As to claims 70, 77, 84, 91, 98, 105, Gaines teaches returning results (error message, col. 8, lines 1-3).

As to claims 71, 85, 99, note discussion of claim 64 and Gaines further teaches receiving (fig. 3A).

9.   Claims 65, 67, 72, 74, 79, 81, 86, 88, 93, 95, 100, 102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaines in view of Hill et al as applied to claims 64, 71, 78, 85, 92, 99 and further in view of Priven et al.

As to claims 65, 72, 79, 86, 93, 100, note discussion of claim 35.

As to claims 67, 74, 81, 88, 95, 102, note discussion of claims 38 and 66.

10.   Applicant's arguments filed 11/5/2002 have been considered but are moot in view of the new ground(s) of rejection. Applicant amended claims have added limitations not previously recited, thus, requiring a new grounds of rejection.

Regarding claim 34, applicant argued in substance (1) that the virtual application of Gaines cannot equate to the first program because the transferable program 302 is not contained in a virtual application or operating system (page 15, 1st paragraph), (2) that the transferable program 302 and virtual application 143 may be one of the same and cited col. 13, lines 48-55 for support (page 15, 1st paragraph, lines 13-23), (3) that Gaines does not teach a portion of the code because the examiner, in the office action, page 3, paragraph 6, line 14, mapped "a portion of the code (transferable program 302)" (page 16, 1st paragraph), (4) that Gaines does not teach a portion of the code because Gaines states that it is a copy of the transferable program 302 / a set of program code 207 is provided (page 16, 2nd paragraph).

The examiner respectfully disagrees. As to (1), the transferable program 302 of Gaines is part of the virtual application 143 because the virtual application executing on each host computer provides a graphical user interface portion for by a user at that host to interact (input/output) with the virtual application (col. 8, lines 63-67), and the transferable program 302 contains the graphical user interface portion of the virtual application which, after interaction with the user, is transferred to another host computer to be used by another user (col. 14, lines 15-20, 46-54, 59-65). The purpose of so doing is to provide each user with a uniform and familiar interface.

As to (2), the passage cited by applicant (col. 13, lines 48-55) describes the access control functionality provided by the process control subsystem of each host computer to check the access permission of the transferable program 302, which is not claimed, nor precluded, in claim 34.

As to (3), regarding the examiner's interpretation of a portion of the code in Gaines, applicant only recited the second mapping (on line 16) of a portion of the code in the

discussion of claim 34 which is an abbreviated version of the first mapping appearing in the same paragraph, lines 5-6. The first mapping is "code (transferable program 302 including elements of user interface 203)". Clearly, the examiner interpreted a portion of the code as the transferable program 302 which includes elements of user interface 203, if the rejection is considered in its entity as it should be.

As to (4), first, claim 34 only requires sending one portion of the code, regardless of what happens to the rest of the code. See claim 34. How such rest of the code is treated is not claimed. Second, whether Gaines transfers a copy, or the original, of the transferable program 302 is not claimed, nor precluded by claim 34. Third, for the reason discussed for point (1), the transferable program 302 of Gaines is part of the virtual application 143. Gaines also teaches that the set of program code 207 is the code selected by a user to be included in the transferable program 302 to be sent. See col. 13, lines 23-27.

It is noted that applicant did not provide any arguments in substance regarding other claims except for claim 34, nor regarding other reference (page 16, 4th paragraph - page 18, 1st paragraph).

Therefore, applicant's arguments are not persuasive.

11.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

12.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (703) 305-9657. A voice mail service is also available at this number. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7238 for After Final communications, (703) 746-7239 for Official communications and (703) 746-7240 for Non-Official/Draft communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Sue Lao

January 24, 2003